

REMARKS

The Applicant thanks the Examiner for the careful consideration of this application. With this amendment, claims 2-12, 14-28, 30, and 32-49 are pending in the application. Based on the following amendments and remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections Based on 35 U.S.C. § 101

On pages 2-3 the Office Action states that claims 2-12, 14-28, 30, 32-36, 38, and 44-46 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Applicants have amended the specification. Therefore, the Applicants respectfully request that this rejection be withdrawn.

Regarding claims 30 and 45, claims 30 and 45 have been rejected under 35 U.S.C. § 101 only. Thus, in view of the above amendments to the specification, Applicants submit that claims 30 and 35 are allowable.

Rejection Under 35 USC § 103

On pages 3-11, claims 2-12, 14-28, 32-41, 43, 44, 46, 47, and 49 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,215,519 to Nayar et al. (Nayar) in view of the Applicant's allegedly admitted prior art. Applicants respectfully traverse these rejections.

With respect to claim 14, Applicants respectfully submit that claim 14 is patentable over Nayar in view of Applicant's allegedly admitted prior art for at least the following two reasons.

First, Nayar fails to disclose "defining a passback direction for a video monitored area," as recited in claim 14. In rejecting claim 14, the Office Action aligns "defining a passback direction" with controlling the PTZ system of Nayar (i.e. FIG. 2 and col. 7, l. 41-48). Applicants respectfully disagree with this alignment.

In contrast to claim 14, Nayar discloses the surveillance system and method that provides both a wide-angle field of view of a monitored area as well as high resolution, magnified images of

regions of interest within the monitored area. Nayar, col. 2, l. 64 through col. 3, l. 4. “In use, [a] first imaging system provides a wide-angle view of the area being monitored. The wide angle view is then used to control the adjustable view settings of [a] second imaging system[s], which are capable of providing greater resolution images of regions of interest within the area.” Nayar, col. 3, l. 17-22. The second imaging system(s) may be a camera with pan, tilt, and zooming capabilities. Nayar, col. 3, l. 23-27.

Figure 2 depicts a preferred embodiment of the imaging system disclosed in Nayar comprising a wide-angle imaging system (WAIS), a pan, tilt, and zoom (PTZ) system, and a monitoring station 80. Nayar, col. 7, l. 27-31. In use, the WAIS provides images to the monitoring station which is monitored by an operator. Nayar, col. 7, l. 31-34. The operator may then select an area using the input means 60 (such as a keyboard or joystick) to activate the PTZ system and gain a better view of the area of interest. Nayar, col. 7, l. 34-38. The input means 60 works with the mapping unit 70 to provide the PTZ system with the appropriate pan, tilt, and zoom settings to retrieve a high-resolution, zoomed image of the region of interest. Nayar, col. 7, l. 38-48.

Thus, while Nayar discloses a system, containing a WAIS and a PTZ system, in which input means may be used to focus the PTZ camera on an area of interest (see col. 7, l. 41-48 – which is relied upon by the Office Action), Nayar does not disclose “defining a passback direction for a video monitored area,” as recited in claim 14. Accordingly, claim 14 is patentable over Nayar.

Second, Nayar fails to disclose “detecting passback events based on the passback direction and extracted tracks,” as recited in claim 14. In rejecting claim 14, the Office Action aligns “detecting passback events” with the motion detection unit 92 (i.e. FIG. 6 and col. 9, l. 40-45). Applicants respectfully disagree with this alignment.

In contrast to claim 14, Nayar discloses the surveillance system and method that provides both a wide-angle field of view of a monitored area as well as high resolution, magnified images of regions of interest within the monitored area. Nayar, col. 2, l. 64 through col. 3, l. 4. Figure 6 discloses a preferred embodiment of the imaging system disclosed in Nayar wherein a frame grabber 30 provides image frames from the WAIS 10 to a motion detection unit 92 (which detects the movement of objects irrespective of the direction the object is moving). Nayar, col. 9, 31-40. The motion detection unit 92 communicates with the object tracking unit 94. Nayar, col. 9, l. 40-42.

The object tracking unit 94 tracks the detected objects and enables the PTZ system 20 to track the object. Nayar, col. 9, l. 42-45 and col. 9, l. 56-64.

Thus, Nayar discloses a system in which the movement of an object, irrespective of the object's direction, in a WAIS is used to control a PTZ system (see col. 9, l. 40-45 – which is relied upon by the Office Action). Nayar does not disclose or suggest further analyzing the detected motion to determine, for example, directionality. Instead, Nayar merely determines the presence or absence of motion in an area, regardless of direction, and points a PTZ system at that area. Furthermore, since directionality is not relevant to the operation of the WAIS and PTZ system, a person of ordinary skill in the art would not be motivated to modify Nayar to further analyze motion to determine directionality. For example, Nayar could not be modified to determine an instance in which an individual person, within a crowd, is moving in a direction opposite to that of the crowd. Instead, Nayar would simply detect the combined motion of the crowd and the individual. Thus, Nayar does not disclose “detecting passback events based on the passback direction and extracted tracks,” as recited in claim 14. Accordingly, claim 14 is patentable over Nayar.

Furthermore, none of Applicant’s allegedly admitted prior art discloses “defining a passback direction for a video monitored area” or “detecting passback events based on the passback direction and extracted tracks,” as recited in claim 14. Accordingly, claim 14 is patentable over Applicant’s allegedly admitted prior art.

Dependent claims 2-12, 15-23 and 33-36 depend on claim 14 and are believed to be allowable for at least the same reasons as above. Therefore, Applicant respectfully requests that the above rejection of claims 2-12, 15-23 and 33-36 be withdrawn and that claims 2-12, 15-23 and 33-36 be allowed.

Independent claims 24, 32, 37, 39, 41, 43, 47, and 49 recite one or more elements similar to claims 14 (i.e., elements similar to “defining a passback direction for a video monitored area” and/or “detecting passback events based on the passback direction and extracted tracks” of claim 14) and are therefore allowable for at least the same reasons as described above with respect to claim 14.

Dependent claims 25-28 and 40 depend on claims 24 and 39, respectively, and are believed to be allowable for at least the same reasons as above. Therefore, Applicant respectfully requests

that the above rejection of claims 25-28 and 40 be withdrawn and that claims 25-28 and 40 be allowed.

Regarding claim 38, Applicant believes claim 38 is patentable for at least the following two reasons.

First, Nayar fails to disclose “a passback direction,” as recited in claim 38. In rejecting claim 38, the Office Action appears to align “a passback direction” with controlling the PTZ system of Nayar (i.e. FIG. 2 and col. 7, l. 41-48). Applicants respectfully disagree with this alignment.

As discussed in connection with claim 14, Nayar discloses a system, containing a WAIS and a PTZ system, in which input means may be used to focus the PTZ camera on an area of interest (see col. 7, l. 41-48 – which is relied upon by the Office Action). Thus Nayar does not disclose “a passback direction,” as recited in claim 38. Accordingly, claim 38 is patentable over Nayar.

Second, Nayar does not disclose “filtering the extracted tracks to detect passback events in said video monitored area based on a passback direction and the extracted tracks for said video monitored area,” as recited in claim 38. In rejecting claim 38, the Office Action aligns “filtering the extracted tracks to detect passback events” with the motion detection unit 92 (i.e. FIG. 6 and col. 9, l. 40-45). Applicants respectfully disagree with this alignment.

As discussed in connection with claim 14, Nayar discloses a system in which the movement of an object, irrespective of the object's direction, in a WAIS is used to control a PTZ system (see col. 9, l. 40-45 – which is relied upon by the Office Action). Thus Nayar does not disclose “filtering the extracted tracks to detect passback events in said video monitored area based on a passback direction and the extracted tracks for said video monitored area,” as recited in claim 38. Accordingly, claim 38 is patentable over Nayar.

Furthermore, none of Applicant’s allegedly admitted prior art discloses “a passback direction” or “filtering the extracted tracks to detect passback events in said video monitored area based on a passback direction and the extracted tracks for said video monitored area,” as recited in claim 38. Accordingly, claim 38 is patentable over Applicant’s allegedly admitted prior art.

Independent claim 44 recites one or more elements similar to claims 38 (i.e., elements similar to “a passback direction” and/or “filtering the extracted tracks to detect passback events in said video monitored area based on a passback direction and the extracted tracks for said video

monitored area” of claim 38) and are therefore allowable for at least the same reasons as described above with respect to claim 38.

Regarding claim 46, Applicant believes claim 46 is patentable for at least the following two reasons.

First, Nayar fails to disclose “a passback direction,” as recited in claim 46. In rejecting claim 46, the Office Action appears to align “a passback direction” with controlling the PTZ system of Nayar (i.e. FIG. 2 and col. 7, l. 41-48). Applicants respectfully disagree with this alignment.

As discussed in connection with claim 14, Nayar discloses a system, containing a WAIS and a PTZ system, in which input means may be used to focus the PTZ camera on an area of interest (see col. 7, l. 41-48 – which is relied upon by the Office Action). Thus Nayar does not disclose “a passback direction,” as recited in claim 46. Accordingly, claim 46 is patentable over Nayar.

Second, Nayar does not disclose “analyzing the obtained video to detect passback events in the video monitored area based on a passback direction for the video monitored area,” as recited in claim 46. In rejecting claim 46, the Office Action aligns “detect[ing] passback events in the video monitored area based on a passback direction” with the motion detection unit 92 (i.e. FIG. 6 and col. 9, l. 40-45). Applicants respectfully disagree with this alignment.

As discussed in connection with claim 14, Nayar discloses a system in which the movement of an object, irrespective of the object's direction, in a WAIS is used to control a PTZ system (see col. 9, l. 40-45 – which is relied upon by the Office Action). Thus Nayar does not disclose “analyzing the obtained video to detect passback events in the video monitored area based on a passback direction for the video monitored area,” as recited in claim 46. Accordingly, claim 46 is patentable over Nayar.

Furthermore, none of Applicant’s allegedly admitted prior art discloses “a passback direction” or “analyzing the obtained video to detect passback events in the video monitored area based on a passback direction for the video monitored area,” as recited in claim 46. Accordingly, claim 46 is patentable over Applicant’s allegedly admitted prior art.

Allowable Subject Matter

On page 11, the Office Action indicates that claim 42 and 48 are allowable. Applicants thank the Examiner for this indication of allowable subject matter.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is hereby invited to telephone the undersigned at the number provided.

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Respectfully submitted,

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